(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 4 November 2004 (04.11.2004)

(10) International Publication Number WO 2004/094766 A3

(51) International Patent Classification7:

E21B 23/01

(21) International Application Number:

PCT/US2004/011973

(22) International Filing Date: 15 April 2004 (15.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/463,586

17 April 2003 (17.04.2003)

(71) Applicant (for all designated States except US): ENVEN-TURE GLOBAL TECHNOLOGY [US/US]; 16200 A. Park Row, Houston, TX 77084 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BRISCO, David, Paul [US/US]; 405 Westridge Drive, Duncan. OK 73533

(US). WATSON, Brock, Wayne [US/US]; 2535 Marsh Lane #1004, Carrollton, TX 75006 (US), TREECE, Harold [US/US]; 213 Ridgecrest Drive, Duncan, OK 73533 (US).

(74) Agent: MATTINGLY, Todd: Haynes and Boone, LLP, 901 Main Street, Suite 3100, Dallas, TX 75202 (US).

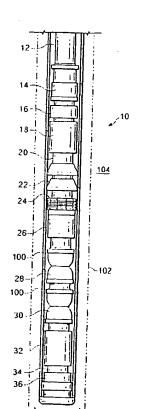
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FL GB, GD, GE, GH, GM, HR, HU, ID, H., IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available); ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: APPARATUS FOR RADIALLY EXPANDING AND PLASTICALLY DEFORMING A TUBULAR MEMBER

(57) Abstract: An apparatus for radially expanding and plastically deforming a tubular (100).



BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International application No.

A. CLA	ASSIFICATION OF SUBJECT MATTER		FCI/O.	504/119/3
JPC(7)	: E21B 23/01			
US CL	: 166/298, 55.7			
According t	to International Patent Classification (IPC) or to both	national c	lassification and IPC	
D. PIE	LDS SEARCHED			
Minimum d	ocumentation searched (classification system follow	ed by class	ification symbols)	
U.S. ;)	166/298, 55.755, 55.6, 297; 405/184.3		,,	
Documentat	tion searched other than minimum documentation to	the extent	that such documents are it	ncluded in the fields
				netaded in the netas seatched
				
Electronic da	ata base consulted during the international search (na	ame of date	hase and udvara many	LI
EAST		aine or date	ouse and, where practica	ble, search terms used)
C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, when	e appropris	te of the relevant same	
Х	US 5,306,101 A (Rockower et al.) 26 April 1994 (26.04.1994), see entire document.			
v				1, 13, 26 and 41
Х	JS 6,325,148 B1 (Trahan et al.) 4 December 2001 (04.12.2001), see entire document. 50, 59-67, 70 ar			
P,X	US 6,598,678 B1 (Simpson et al.) 29 July 2003 (29.07.2003), see entire document.			- 3,00 07,.70 and 72
•				1-75
				!
				
	·			
1				
i				
				
Further of	documents are listed in the continuation of Box C.		See patent family annex	<u> </u>
Sp	ecial categories of cited documents:	_ _		
document o	defining the general state of the art which is not considered to be of			r the international filing date or priority he application but cited to understand the
particular r	elevance		principle or theory underlying	the invention
" earlier appl	ication or patent published on or after the international filing date	"X"	document of particular releva-	nce; the claimed invention cannot be
and the state of t				COnsidered to munice an inventive as
	which may throw doubts on priority claim(s) or which is cited to e publication date of another citation or other special reason (as	42.00		
specified)	. Obict special teason (as	"Y"	document of particular relevan	nce; the claimed invention cannot be
" document re	ferring to an oral disclosure, use, exhibition or other means			ntive step when the document is combined ocuments, such combination being
			obvious to a person skilled in	the art
priority date	ublished prior to the international filing date but later than the eclaimed	"&"	document member of the same	patent family
ite of the actu	al completion of the international search	10.0		
1		Date of mailing of the international search report		
8 August 2005 (18.08.2005)		L	27 SEP 21	เบา
ame and mailing address of the ISA/US Mail Stop PCT, Atm: ISA/US			ed officer	1
Comm	issioner for Patents	David	Le Village and	Ja
P.O. B	lox 1450	1	8	1
Alexar '' simile No. /	ndria, Virginia 22313-1450 703) 305-3230	Telephon	e No. 571-272-3600	V
1 LC 1/19 W/5	10 (second sheet) (January 2004)			